

Plastic Surgery

Group leader

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Research technicians

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DESCRIPTION

The research group at the Department of Plastic Surgery, Hospital Sant Pau, focuses on key areas, including lymphedema surgery and disorders of the lymphatic system. The main areas of work include diagnostic methods, indocyanine green and lymphoresonance, surgical techniques for secondary lymphedema treatment, and prevention. Another significant research line is the development of new perforator flaps using imaging techniques, which has led to major scientific advancements in the past 20 years. We have also begun exploring lymphatic brain disease surgery, particularly for Alzheimer's.

The department collaborates with European centers, including Helsinki University Hospital, Ghent University Hospital, and the Gustave Roussy Institute in Paris.

MAIN LINES OF RESEARCH

- PRIMO: Post-Market, Non-Randomized, Multicentre PMCF Study To Monitor The Safety And Performance Of Symani System In Microsurgical Reconstructive Procedures In A Real Life Setting - ID Identifier: NCT04843436 (Masia Ayala, Jaume; Condrea, Sílvia),
- TIDE study: First in Human study of Matisse Tissue Engineering Chamber in adult female after total mastectomy for breast cancer in immediate or delayed 2 stage tissue expander reconstruction or conversion from implant-based to autologous reconstruction. A two

stage single arm non comparative study of safety and performance. (Masia Ayala, Jaume; Lusetti, Irene Laura),

DOCTORAL THESES DEFENDED

- Al-Haddar Al-Sakkaf, Ali Mahdi. Evidence synthesis in the treatment for breast cancer-related Lymphedema. 27/06/2024. Universitat Autònoma de Barcelona. Supervisors: Masia Ayala, Jaume; Bonfill Cosp, Xavier. <https://hdl.handle.net/10803/692016>
- Campos Sánchez, José Luis. Desarrollo y validación del modelo animal experimental cunícula para la investigación del linfedema: técnicas supermicroquirúrgicas y regeneración linfática. 05/12/2024. Universidad de Extremadura. Supervisors: Masiá Ayala, Jaume, Abellán Rubio, Elena, Pons Playá, Gemma. <http://hdl.handle.net/10662/22661>
- Casanovas Álvarez, Anabel. Programa de rehabilitación para minimizar las disfunciones musculoesqueléticas propias de la cirugía y tratamiento neoadyuvante en mujeres diagnosticadas de cáncer de mama. 17/10/2024. Universitat Internacional de Catalunya. Supervisors: Masiá Ayala, Jaume; Sebio Garcia, Raquel; Bagur Calafat, Caridad. <http://hdl.handle.net/10803/693649>

SCIENTIFIC PRODUCTION

- Alarcón PZ, Torrano L, Ibarra A, Garrido MF, Playa GP, Masia J. Prophylactic lymphedema surgery in lower limb soft tissue sarcomas: A clinical paradigm in a promising field. *Journal of Plastic Reconstructive and Aesthetic Surgery*. 2024; 88DOI:10.1016/j.bjps.2023.11.0361748-6815. PMID:38113721. IF:2,000 (Q2/4D). Document type: Article.
- Campos J, Pons G, Al AM, Lusetti I, Pires L, Vela F, Ramos E, Crisóstomo V, Sánchez F, Abellán E, Masiá J. Lymphatic Regeneration after Popliteal Lymph Node Excision and Implantation of Aligned Nanofibrillar Collagen Scaffolds: An Experimental Rabbit Model. *Journal of Functional Biomaterials*. 2024; 15(8):235. DOI:10.3390/jfb15080235.

PMID:39194673. IF:5,000 (Q1/3D). Document type: Article.

- Campos J, Suominen S, Pons G, Al AM, Lusetti I, Sirota M, Vela F, Pires L, Sánchez F, Abellán E, Masiá J. Lymphatic Patterns in the Superficial Circumflex Iliac Artery Perforator Flap. *JOURNAL OF RECONSTRUCTIVE MICROSURGERY*. 2024; DOI:10.1055/a-2340-9629. PMID:38848754. IF:2,200 (Q2/4D). Document type: Article.
- Campos JL, Pires L, Vela FJ, Pons G, A, Sánchez FM, Abellán E, Masiá J. Lymphaticovenous anastomosis in rabbits: A novel live experimental animal model for supermicrosurgical training. *Journal of Plastic Reconstructive and Aesthetic Surgery*. 2024; 93DOI:10.1016/j.bjps.2024.04.023. PMID:38754281. IF:2,000 (Q2/4D). Document type: Article.
- Casanovas A, Estanyol B, Ciendones M, Padròs J, Cuartero J, Barnadas A, García B, González R, Sebio R, Masià J. Effectiveness of an Exercise and Educational-Based Prehabilitation Program in Patients With Breast Cancer Receiving Neoadjuvant Chemotherapy (PREOptimize) on Functional Outcomes: A Randomized Controlled Trial. *PHYSICAL THERAPY*. 2024; 104(12):pzae151. DOI:10.1093/ptj/pzae151. PMID:39423256. IF:3,500 (Q1/1D). Document type: Article.
- Casanovas A, Sebio R, Masià J, Mateo E. Experiences of Patients with Breast Cancer Participating in a Prehabilitation Program: A Qualitative Study. *Journal of Clinical Medicine*. 2024; 13(13):3732. DOI:10.3390/jcm13133732. PMID:38999298. IF:3,000 (Q1/2D). Document type: Article.
- Cheng MH, Chang DW, Masia J. Introduction of the 10th World Symposium for Lymphedema Surgery. *JOURNAL OF SURGICAL ONCOLOGY*. 2024; DOI:10.1002/jso.27919. PMID:39387585. IF:2,000 (Q2/4D). Document type: Article.
- Devoogdt N, De Vrieze T, Heroes AK, Bechter B, Fieuws S, Godderis L, Segers K, Maleux G, Deltombe T, Fripiat J, Servaes M, Berners A, Fosseprez P, Krug B, Kayser F, Falticeanu A, Randon C, Monten C, Van

- K, De Pypere B, Degraeve L, Decorte T, De Schryver M, Van V, Devos D, Suominen S, Ayala JM, Pons G, Fourneau I, Thomis S. SurLym trial: study protocol for a multicentre pragmatic randomised controlled trial on the added value of reconstructive lymphatic surgery to decongestive lymphatic therapy for the treatment of lymphoedema. *BMJ Open*. 2024; 14(5):e078114. DOI:10.1136/bmjopen-2023-078114. PMID:38729754. IF:2,400 (Q1/3D). Document type: Article.
- Gilardino MS, Vela A. The GLAND-IQ Technique for Surgical Correction of Moderate to Severe Gynecomastia. *Plastic And Reconstructive Surgery-Global Open*. 2024; 12(6):e5869. DOI:10.1097/GOX.0000000000005869. PMID:38841522. Document type: Article.
 - León X, López S, Pérez M, Valero C, Holgado A, Quer M, Vega C. Results of surgical treatment of lymph node metastases in patients with cutaneous squamous cell carcinoma of the head and neck. *Acta Otorrinolaringologica Espanola*. 2024; 75(3). DOI:10.1016/j.otorri.2023.07.007. PMID:38224869. Document type: Article.
 - Pomata CD, Pons G, Masia J. Barcelona lymphedema algorithm for surgical treatment (BLAST). *Annals Of Breast Surgery*. 2024; 8:7. DOI:10.21037/abs-22-10. Document type: Review.
 - Pons G, Sisternas L, Masia J. Immediate Partial Breast and Nipple-Areola Complex Reconstruction Using a Superficial Circumflex Iliac Artery Perforator Flap. *Archives Of Plastic Surgery-Aps*. 2024; 51(02). DOI:10.1055/a-2223-5325. PMID:38596154. Document type: Article.